#### 2<sup>nd</sup> Manfred Lachs International Conference on Global Space Governance Montreal, 29-31 May 2014

# The Future Global Governance of Space Security - International Law and Armed Conflicts Involving Space Technology

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#### Technological Challenges for the Humanitarian Legal Framework

- International Law and technology
- IHL embedded into International Law means and methods of warfare
- IHL applies to novel types of weaponry and new technological developments

#### but.....

- is (usually) 'one war late'
- How to react in law to technological challenges on the battlefield?
- What constitutes 'the battlefield'?
- Are we (should we be) applying 20<sup>th</sup> Century laws to 21<sup>st</sup> Century technology?
- Are the IHL laws applicable? relevant? appropriate? sufficient? clear?
- What 'shapes' what?



# Technological 'Challenges' to IHL include....

- cyber technology
- remote-controlled weapons systems technology
- robotics technology
- space technology
- others?



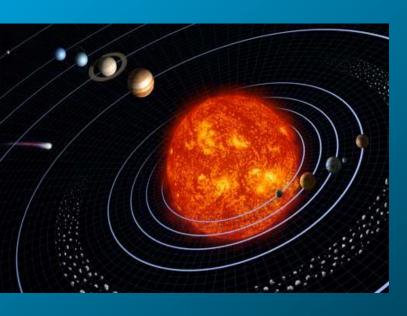
### **Opportunities and Risks**

- Potential to minimize casualties
- Greater selectivity => an obligation to use?
- non-lethal / less-lethal means of warfare

#### but.....

- Increasing trend to 'long distance warfare'
  => a disconnect
- It's 'too easy'
- More attacks?
- A lower threshold?
- Increased destructive capabilities
- More likely to 'render death inevitable'
- Moral and ethical challenges moral disengagement
- Legal uncertainties

### Outer Space Treaty — Principles Relevant to Military Uses



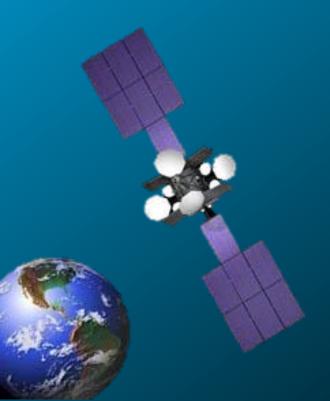
- 'province of mankind' / 'common heritage of mankind'
  - No appropriation / claims of sovereignty
  - International law applies (including UN Charter)

Freedom to explore and use / free access for all

- Interests of maintaining international peace and security
- No nuclear weapons / weapons of mass destruction
- 'Peaceful Purposes'
- State responsibility / liability for 'national activities in outer space'
- International cooperation / keeping UN informed



### Military Uses of Outer Space – a reality



- Peaceful Purposes
  - Non-military' v 'non-aggressive'
    - a redundant argument?
- Operation Desert Storm the first 'Space War'
  - Kosovo, Afghanistan, Iraq, Libya etc
- Military satellites / space assets an 'integrated battle platform'
- Commercial satellites
  - dual use' satellites
    - Communications
    - GPS technology
    - Remote sensing
- Weapons systems
  - Earth => Space missile defence shield / ballistic missiles / ASATS
  - Space => Space
  - Space => Earth
- 'Fourth Territory'?

## Space Security — International / National Policy

- Activities of the Major Space Faring States
  - A 'Space Pearl Harbour'
- A Space Arms Race? UNGA Resolutions
  - the weaponisation of space?
- Draft 2008 Treaty to Prevent Weapons
- TCBMs Draft International Code of Conduct

# A Hypothetical? — An Application of IHL Principles

- International law applies in outer space
- No 'territorial' limitation to jus in bello
  - IHL Principles apply
    - in combat zone
    - where acts cause (direct) effects?
- Outer Space used for
  - 'passive' military activities
  - as an 'active' theatre of warfare?

### Application of IHL Principles

- Principles of
  - Distinction
  - Military Objective
  - Proportionality
    - appropriate for actions in outer space?
- Can a satellite be a legitimate target of war?
  - military satellites
  - 'dual-use' satellites
- Effects?
  - communities / States / regions etc reliant on satellite technology

### **Concluding Comments**

- Space technology already used to conduct armed conflict
- Increasing likelihood that space may become a 'theatre of war'
- Legal 'status' of satellites legitimate military target?
- How to apply / adapt the jus in bello?
- Need for specific standards
  - Definitions 'space' / 'peaceful purposes' / 'military uses'
  - Need to adhere to the collective 'humanity' principles of space law and IHL